

### Abstract of the Disclosure

A branch predictor outputs either a predicted conditional branch or an  
5 inverted predicted conditional branch as a final branch prediction outcome,  
in response to a predicted accuracy history signal based on an accuracy  
history bit. According to the accuracy history bit, it is determined whether  
the branch prediction outcome of the branch predictor is correct or not. If the  
predicted conditional branch is correct, the branch predictor outputs the  
10 predicted conditional branch, and if the predicted conditional branch is not  
correct, the branch predictor outputs the inverted predicted conditional  
branch, in response to the predicted accuracy history signal. For performing  
this process, the branch prediction merely appends an accuracy history table  
and a multiplexer to a conventional branch predictor, so that the branch  
15 prediction according to the present invention can reduce the misprediction  
with simple circuitry structure and low hardware cost.